

Application for Certification as an Eligible Energy Resource Under the Delaware Renewable Energy Portfolio Standard

1.	. Name of Facility Smyrna Readiness Center			
2.	. Facility Address 103 Artisans Drive			
	Smyrna, DE 19977			
	is the facility recated than the form control and a		No No	
3.	Name of Owner HQ Delaware National Guard (Delaware Army National Guard - Dr. Susan Lewis)			
	Mailing Address 1st Regiment Road			
	Wilmington, DE 19808			
	Phone 302-326-7135 Fax			
	Email susan.j.lewis12.nfg@mail.mil			
4.	Name of Operator Same as Owner			
	Mailing Address			
	PhoneFax			
	Email			

 $^{^{\}mathrm{1}}$ Documentation will be required to substantiate import capabilities into PJM

5.	Name of Contact Person Same as Owner		
	Mailing Address		
	Phone Fax		
	Email		
6.	Name of REC/SREC Owner Same as Owner		
	Mailing Address		
	Phone Fax		
	Email		
7.	List all PJM-EIS GATS State Certification Numbers assigned to this facility:		
8.	Operational Characteristics:		
	Fuel Types Used (check all that apply):		
	☐ Gas combustion from the anaerobic digestion of organic material		
	☐ Geothermal		
	☐ Ocean, wave or tidal actions, currents, or thermal differences		
	☐ Qualified Biomass ⁱ		
	☐ Qualified Fuel Cells ⁱⁱ		
	☐ Qualified Hydroelectric ⁱⁱⁱ		
	☐ Qualified Methane Gas captured from a landfill gas recovery system ^{iv}		

	☑ Solar
	☐ Wind
	If co-firing, provide the formula on file with PJM Environmental Information
	Services, Inc. (PJM-EIS)
	Rated Capacity (in megawatts - DC) .19448
	If multiple fuel types are utilized, attach the formula for computing the portion of output per fuel type by megawatts per hour generated.
	Facility Final Approved Interconnection Date 10/5/2017
	If co-firing with fossil fuels, co-fire start date
	If co-firing with fossil fuels, attach the allocation formula on file with PJM.
9.	Is the Applicant's facility customer-sited generation ^v ? ☑ Yes □ No
	Is the Applicant's facility a community owned generating facility ^{vi} ? ☐ Yes ☐ No
	Can the output from the customer-sited generation be appropriately metered? ☑ Yes ☐ No

• •	r or wind sited in Delaware, is a minimum of nergy equipment, inclusive of mounting ware?		
☐ Yes*			
CMI Solar & Electric, Inc.	Lauren Donovan Digitally signed by Lauren Donovan, a-CMI Solar & Electric, Inc., ou, email-denovan@emisleletric.com, c=US Dale: 2017.11.28 09:49:10 -0500'		
Company Name of Installer	Signature of Company Representative		
83A Albe Drive Newark, DE 19702	Lauren Donovan		
Address	Print Name of Company Representative		
Address			
 *If Yes, please attach the following documentation: A copy of the supplier's invoice showing Delaware manufactured equipment with this facility identified If the supplier's invoice shows only a coded Purchase Order (PO) number, a copy of the company's matching PO that includes the address where the materials were used/installed, must also be supplied If using a master invoice, a record of the draws against the purchased quantity, on the master invoice, must show the address of each use and the quantity of material used 11. If the Applicant's installation is solar or wind sited in Delaware: Was the facility physically constructed or installed with a workforce that 			
consists of at least 75% Delaware residents? ☐ Yes* ☐ No b. Does the installing company employ, in total, a minimum of 75% workers who are Delaware residents? ☐ Yes* ☐ No			
CMI Solar & Electric, Inc.	Lauren Donovan Digitally signed by Lauren Donovan		
	Date: 2017.11.28 09:49:21 -05'00'		
Company Name of Installer	Signature of Company Representative		
83A Albe Drive Newark, DE 19702	Lauren Donovan		
Address	Print Name of Company Representative		
Address			

^{*}If Yes, please attach supporting documentation (see pages 7-8 for details). Please note, in order to qualify for the Labor/Workforce Bonus, at least one of the options (a. or b.) must be met.

I, Lauren Donovan (print name) hereby certify under penalty of perjury that

- 1. I have made reasonable inquiry, and the information contained in this Application is true and correct to the best of my knowledge, information and belief.
- 2. I am authorized to submit and execute this Application and to bind myself and/or my company to the representations contained herein.
- 3. I/my company agree(s) to comply with and be subject to the jurisdiction of the Public Service Commission of the State of Delaware for any matters arising out of my submission of this Application or the granting of the Application.
- 4. In the event that any of the information contained in this Application changes pending the consideration of this Application or after the Application is granted, I/my company will amend the Application to provide the Commission with such changed information.
- 5. I acknowledge that if any of the representations made in this Application or in any amendment thereto are found to be untrue when made, I/the company may be subject to sanctions, including but not limited to monetary fines and/or the revocation of any Certificate granted as a result of the representations made in this Application.

Signature: Lauren Donovan		Digitally signed by Lauren Donovan DN: cn=Lauren Donovan, o=CMI Solar & Electric, Inc., ou, email=Idonovan@cmielectric.com, c=US Date: 2017.11.28 09:49:32 -05'00'	
	/28/2017		

Required Documentation:

- If the facility is customer-sited generation, attach a copy of the utility's Final Approved Interconnection Agreement
- One copy of U.S. Department of Energy, Energy Information Administration Form EIA-860, if rated capacity is >1.0 MW

- 1. Increased production of landfill gas from production facilities in operation prior to January 1, 2004 demonstrates a net reduction in total air emissions compared to flaring and leakage;
- 2. Increased utilization of landfill gas at electric generating facilities in operation prior to January 1, 2004 (i) is used to offset the consumption of coal, oil, or natural gas at those facilities, (ii) does not result in a reduction in the percentage of landfill gas in the facility's average annual fuel mix when calculated using fuel mix measurements for 12 out of any continuous 15 month period during which the electricity is generated, and (iii) causes no net increase in air emissions from the facility; and
- Facilities installed on or after January 1, 2004 meet or exceed 2004 Federal and State air emission standards, or the Federal and State air emission standards in place on the day the facilities are first put into operation, whichever is higher.

ⁱ "Qualified Biomass" means electricity generated from the combustion of biomass that has been cultivated in a sustainable manner as determined by Delaware Department of Natural Resources and Environmental Control (DNREC), and is not combusted to produce energy in a waste to energy facility or in an incinerator.

[&]quot;Qualified Fuel Cells" means electricity generated by a fuel cell powered by Renewable Fuels, as that term is defined in Section 1.0 of the Rules and Procedures to Implement the Renewable Energy Portfolio Standard, Delaware Public Service Commission Regulation Docket No. 56.

[&]quot;" "Qualified Hydroelectric" means electricity generated by a hydroelectric facility that has a maximum design capacity of 30 megawatts or less from all generating units combined that meet appropriate environmental standards as determined by DNREC.

[&]quot;" "Qualified Methane Gas" means electricity generated by the combustion of methane gas captured from a landfill gas recovery system; provided, however, that:

^v "Customer-sited Generation" means a generating unit that is interconnected on the end use customer's side of the retail electricity meter in such a manner that it displaces all or part of the metered consumption of the end-use customer.

vi "Community-owned Energy Generating Facility" means a renewable energy generating facility that has multiple owners or customers who share the output of the generator, which may be located either as a stand-alone facility or behind the meter of a participating owner or customer. The facility shall be interconnected to the distribution system and operated in parallel with an electric distribution company's transmission and distribution facilities.

Documentation Required for Delaware Labor/Workforce Bonus

- 11. If the Applicant's installation is solar or wind sited in Delaware:
 - a. Was the facility physically constructed or installed with a workforce that consists of at least 75% Delaware residents?

If you answered yes to "a." above, complete the following as evidence.

The following individuals (list every employee) were employed by

CMI Solar & Electric, Inc.

Installation Company Name

as direct labor (physical construction and installation) for this facility: (Attach additional sheets if necessary)

Please complete the following information for all individuals listed above:

Name	Home Address City, State only (As per Tax Withholding)	Social Security Number (Last 2 digits only)
Andrew Faulkner	Wilmington, DE	xxx-xx-xx62
Bryan Kreer	Newark, DE	xxx-xx-xx40
Edward McGuire, Jr.	Wilmington, DE	xxx-xx-xx33
John Allen	New Castle, DE	xxx-xx-xx92
Marco Almeida	Cherry Hill, NJ	xxx-xx-xx32
Robert McConaghie	Wilmington, DE	xxx-xx-xx71
Michael Robinson	Newark, DE	xxx-xx-xx24
Zachary Sulecki	Newark, DE	xxx-xx-xx12

Total Delaware Resident Employees:	
% of Delaware Residents (Delaware R	esidents Divided by Total Employees): 88%

Documentation Required for Delaware Labor/Workforce Bonus

- 11. If the Applicant's installation is solar or wind sited in Delaware:
 - b. Does the installing company employ, in total, a minimum of 75% of workers who are Delaware residents?

Installation Company Name

If you answered yes to "b." above, complete the following as evidence:

ect Start Date:	Project Complete Date:	
Employee Full Name	Home Address City, State Only (As per Tax Withholding)	Social Security Number (Last 2 di Only)

Lauren Donovan

From: James Markow <jmarkow@smyrna.delaware.gov>

Sent: Thursday, October 05, 2017 10:29 AM

To: Lauren Donovan

Subject: RE: Smyrna - Interconnection Application for 103 Artisan Drive, (HQ Delaware National

Guard), technical review report

I have already signed for the approval of the installation. If you have all permits and inspections are complete, you can turn on the solar system.

We have installed a meter and programmed it for bi-directional. Please let us know when you turn on the solar system, as we would like to monitor the meter.

If you need anything else please let us know.

James Markow
Information Systems Manager
Town of Smyrna
27 S Market St Plaza
Smyrna, DE 19977
302-653-9231 ext 2315
302-653-3492 Fax
jmarkow@smyrna.delaware.gov

From: Lauren Donovan [mailto:ldonovan@cmielectric.com]

Sent: Thursday, October 05, 2017 10:27 AM

To: James Markow

Subject: RE: Smyrna - Interconnection Application for 103 Artisan Drive, (HQ Delaware National Guard), technical review

report

Good morning Mr. Markow,

Thank you for taking my call just now. Attached is the original signed Approval to Install, and it doesn't look like there was an area of that application from the site that show an approval to operate signature area. I believe you said you would attached a signed letter giving approval to operate for the rest of our submissions, which I appreciate.

I'll have someone scheduled to the site to get that industrial meter turned on, and will let you know when that takes place.

Thanks!

Lauren Donovan, Renewable Permitting and Design Manager

CMI Solar & Electric, Inc. Idonovan@cmielectric.com 83A Albe Drive Newark, DE 19702 T: (302) 731-5556

F: (302) 731-4021

www.cmielectric.com

From: James Markow [mailto:jmarkow@smyrna.delaware.gov]

Sent: Wednesday, August 30, 2017 8:58 AM

To: Lauren Donovan ldonovan@cmielectric.com; David V. Downes ddownes@downesassociates.com;

Cc: Dale Davis <ddavis@cmielectric.com>

Subject: RE: Smyrna - Interconnection Application for 103 Artisan Drive, (HQ Delaware National Guard), technical review report

We are waiting on a meter, we should have it this week or the next

From: Lauren Donovan [mailto:ldonovan@cmielectric.com]

Sent: Monday, August 28, 2017 12:32 PM **To:** James Markow; David V. Downes

Cc: Dale Davis

Subject: FW: Smyrna - Interconnection Application for 103 Artisan Drive, (HQ Delaware National Guard), technical

review report

Good afternoon Mr. Markow,

The Delaware National Guard Smyrna facility has been installed, and the approved electrical inspection certificate attached. If anything else is required for the net meter to be installed, and the approval to operate issued, please don't hesitate to let me know.

Kind regards,

Lauren Donovan, Renewable Permitting and Design Manager

CMI Solar & Electric, Inc. Idonovan@cmielectric.com 83A Albe Drive Newark, DE 19702 T: (302) 731-5556 F: (302) 731-4021

www.cmielectric.com

From: James Markow [mailto:jmarkow@smyrna.delaware.gov]

Sent: Tuesday, May 09, 2017 12:49 PM

To: Lauren Donovan <ldonovan@cmielectric.com>

Cc: Bill Evans < billevans@smyrna.delaware.gov >; Gary Stulir < gstulir@smyrna.delaware.gov >; Dale Davis < ddavis@cmielectric.com >; Timothy B. Shaver < tshaver@downesassociates.com >; Mark W. McAllister < mmcallister@downesassociates.com >; Secretary < Secretary@downesassociates.com >;

ddownes@downesassociates.com; Doug Burns <dburns@smyrna.delaware.gov>

Subject: RE: Smyrna - Interconnection Application for 103 Artisan Drive, (HQ Delaware National Guard), technical review report

You application has been approved.

From: David V. Downes [mailto:ddownes@downesassociates.com]

Sent: Tuesday, May 09, 2017 10:17 AM

To: James Markow

Cc: Bill Evans; Gary Stulir; Lauren Donovan; Dale Davis; Timothy B. Shaver; Mark W. McAllister; Secretary

Subject: Smyrna - Interconnection Application for 103 Artisan Drive, (HQ Delaware National Guard), technical review

report

James

Attached is the technical review report for the interconnection Application for 103 Artisan Drive (HQ Delaware National Guard).

Please let me know if you have any questions, Dave

David V. Downes, CEO
Downes Associates, Inc.
2129 Northwood Drive
Salisbury, MD 21801
410-546-4422 x126
410-430-9985 (c)
410-749-4495 (fax)
ddownes@downesassociates.com
http://www.downesassociates.com

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Appendix 3

Generator Interconnection Application - Long Form (For Use with Generators Greater than 25 kW and Less than 1 MW)

Town of Smyrna

Generator Interconnection Application—Long Form (For Use with Generators Greater than 25 kW and Less than 1 MW)

An applicant (Generator Owner) makes application to Town of Smyrna to install and operate a generating facility greater than 25 kW and less than 1 MW interconnected with the Smyrna Electric system.

Section 1 - Applicant Information
Name: HQ Delaware National Guard
Mailing Address: 1st Regiment Road
City: Wilmington
State: DE Zip Code: 19808 / / / / / / / / / / / / / / / / / /
Facility Location (if different from above): 103 Artisans Drive Smyrna, DE 19977
Telephone (Daytime): Area Code
(Evening) Area Code
Town of Smyrna Account No.: 1851-5050
Energy Service Provider Name: Town of Smyrna
Account No.: 1851-5050
Section 2 - Generator Qualifications
Is the generator a Qualifying Facility as defined under Subpart B, Section 201 of the Federal Energy Regulatory Commission's regulations per the Public Utility Regulatory Policies Act of 1978? ■ Yes □ No
Is Generator powered from a Renewable Qualifying Energy Source: ■ Yes □ No
Type Qualifying Energy Source (if applicable): ■ Solar □ Wind □ Hydro
Other generator energy source: Natural Gas Fuel Oil Other:
Will excess power be exported to Town of Smyrna? ■ Yes □ No
Site Load: kW DC / 198.0 kW AC / kW (Typical)
Maximum Export:/kW.
Section 3 - Generator Technical Information
Type of Generator: □ Synchronous □ Induction ■ DC Generator or Solar with Inverter
Generator (or solar collector) Manufacturer, Model Name & Number: (572) Hanwha Q.Plus L-G4.2 340

(A copy of Generator Nameplate and Manufacturer's Specification Sheet may be substituted) _____ Output Power Rating in kW: 194.48 kW DC Town of Smyrna **Generator Interconnection Application—Long Form** Inverter Manufacturer, Model Name & Number (if used): (3)ABB Trio-20.0-TL-OUTD-S & (5)ABB Trio-27.6-TL-OUTD-S (A copy of Inverter Nameplate and Manufacturer's Specification Sheet may be substituted) (8) total Rating in kW: 198.0 kW AC Generator Characteristic Data (for rotating machines): (Not needed if Generator Nameplate and Manufacture's Specification Sheet is provided) Direct Axis Synchronous Reactance, X_d: ______ P.U. Negative Sequence Reactance: P.U. Direct Axis Transient Reactance, X'd: P.U. Zero Seguence Reactance: P.U. Direct Axis Subtransient Reactance, X'd: P.U. KVA Base: Section 4 - Interconnecting Equipment Technical Data Will an interposing transformer be used between the generator and the point of interconnection? Yes ■ No Transformer Data (if applicable, for Customer Owned Transformer): (A copy of transformer Nameplate and Manufacturer's Test Report may be substituted) Size: ______ KVA. Transformer Primary: _____ Volts □ Delta □ Wye □ Wye Grounded Secondary: _____ Volts Delta Wye Wye Grounded Transformer Impedance: % on KVA Base Transformer Fuse Data (if applicable, for Customer Owned Fuse): (Attach copy of fuse manufacturer's Minimum Melt & Total Clearing Time-Current Curves) Manufacturer: Type: Size: Speed: Interconnecting Circuit Breaker (if applicable): (A copy of breaker's Nameplate and Specification Sheet may be substituted) Manufacturer: _____ Type: ____ Load Rating: ____ Interrupting Rating: ____ Trip Speed: ____

(Amps) (Amps)

(Cycles)

Circuit Breaker Protective Relays (if applicable): (Enclose copy of any proposed Time-Overcurrent Coordination Curves) Manufacturer: _____ Type: ____ Style/Catalog No.: _____ Proposed Setting: _____ Manufacturer: _____ Type: ____ Style/Catalog No.: _____ Proposed Setting: _____ Manufacturer: _____ Type: ____ Style/Catalog No.: _____ Proposed Setting: _____ Manufacturer: _____ Type: ____ Style/Catalog No.: _____ Proposed Setting: _____ Manufacturer: _____ Type: ____ Style/Catalog No.: _____ Proposed Setting: ____ Town of Smyrna **Generator Interconnection Application—Long Form** Current Transformer Data (if applicable): (Enclose copy of Manufacturer's Excitation & Ratio Correction Curves) Manufacturer: _____ Type: _____ Accuracy Class: _____ Proposed Ratio Connection: /5 Manufacturer: _____ Type: _____ Accuracy Class: _____ Proposed Ratio Connection: _____/5 Generator Disconnect Switch: A generator disconnect device, accessible to the Town of Smyrna, must be included for all generators greater than 25 kW. or Square D

Manufacturer: Cutler-Hammer Type: Circuit Breaker Catalog No.: Rated Volts: 480 VAC Rated Amps: 350 A Single or 3 Phase: ^{3 Phase} Mounting Location: Exterior Wall **Section 5 - General Technical Information** Enclose copy of site One-Line Diagram showing configuration and interconnection of all Enclosed? ■ Yes

equipment, current and potential circuits and protection and control schemes. Is One-Line Diagram

Enclose copy of any site documentation that describes and details the operation of the protection and control schemes. Is Any Available Documentation Enclosed? ■Yes

Enclose copies of schematic drawings for all protection and control circuits, relay current circuits, relay potential circuits, and alarm/monitoring circuits.

Are Schematic Drawings Enclosed? ■ Yes

Section 6 - Installation Details Generating System will be installed by: Quener State Licensed Electrician Installing Electrician: Dale W. Davis Firm: CMI Solar & Electric, Inc. License No.: T1-4691 Mailing Address: 83A Albe Drive City: Newark State: DE Zip Code: 19702 Telephone: Area Code: (302) Number: 731-5556 Installation Date: April / Interconnection Date: / Supply certification that the generating system has been installed and inspected in compliance with the local Building/Electrical code. Signed (Inspector): (In lieu of signature of Inspector, a copy of the final inspection certificate may be attached) Town of Smyrna Generator Interconnection Application -Long Form Section 7 - Generator/Equipment Certification Generating systems that use/utilize inverter technology must be compliant with IEEE 929 and Underwriters Lab. UL 1741. Generating systems that use a rotating machine must be compliant with Town of Smyrna's Technical Considerations Covering Parallel Operations of Customer Owned Generation of Less than One (1) MW and Interconnected with the Smyrna Electric System document. By signing below, the Applicant certifies that the installed generating equipment meets the appropriate preceding requirement(s) and can supply documentation that confirms compliance. Signed (Applicant): May MA A Pre-Interconnection Study is normally required for generators greater than 25 kW. However, certain generator types/sizes and the location of the Point of Interconnection with Smyrna Electric System may permit a waiver of the Pre-Interconnection Study. Does the Generation Owner request a waiver of the Pre-Interconnection Study? - Yes o No

A "Yes" response cannot insure that the Pre-Interconnection Study requirement will be waived. Town of Smyrna has the sole authority to grant release from the requirement based

on the merits of each individual Interconnection Application.

Section 8 Application Fee

Application Fee is listed in the Town of Smyrna's Fee Schedule and is to be paid by Applicant when Application is submitted to the Town of Smyrna Business Office.

Section 9 - Applicant Signature

11	
I hereby certify that, to the best of my knowledge, all the information provided in the Interconnection Application is true and correct. I also agree to install a Warning Laprovided by Town of Smylina on or near my service meter location.	he abel
Signature of Applicant: # 17	
Send the completed application to Town of Smyrna, P.O. Box 307, 27 South Market Stre Smyrna, Delaware 19977, Attention Business Office	eet Plaza,
Town of Smyrna Generator Interconnection Application—Long Form (For Use with Generators Greater than 25 kW and Less than 1 MW)	
This Section for use by Town of Smyrna Only	
Section 10 - Approval or Non-Approval	
Town of Smyrna: XHas Approved a Has Not Approved this Interconnection Application Name: Date: 5 9 1 2017 Signature: Beason of Not Approving: Musi Follow Mircheo Letten Approval to connect to the Smyrna Electrical System indicates only that the mining requirements for a safe proper interconnection have been satisfied. Such approvalingly that the Generator Owner's facility meets all federal, state and local standar regulations. Section 11 - Internal Notifications	num Il does not
Send Applicant Warning Label for installing on/near service meter:	o Yes
Notify Billing Dept. of Interconnected Generation:	□ Yes
Notify Electric Department of Interconnected Generation:	□ Yes

Application Fee Paid: □ Yes	
DEMEC Notified	□ Yes
Copy of Final Inspection Certificate (or Signature)	□ Yes